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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/745,988 | 12/21/2000 | Dominique P. Bonneau | FR999060 | 1393 |

7590 04/25/2003

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EXAMINER

MOISE, EMMANUEL LIONEL

| | |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2133

DATE MAILED: 04/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.
09/745,988

Applicant(s)
Bonneau et al.

Examiner
Emmanuel L. Moise

Art Unit
2133



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 21, 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

1. Claims 1-23 are presented for examination.

Claim Objections

2. Claims 2-3 are objected to because of the following informalities:

In claims 2-3, in line 2, "circuit" should apparently be replaced with --means-- for consistency with claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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4. Claims 1-5, 9-10, 12, 14-17, and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneider (U.S. Patent No. 6,201,829 B1).

As per claims 1 and 14, Schneider, in Figure 5, teaches the claimed built-in self test circuit or method for testing a clock and data recovery circuit comprising: data generating means for generating a test data byte (element 34, and column 7, lines 41-44); serializing means ... (element 52); clock and data recovery means (elements 48 and 56); deserializing means ... (element 58); and analyzing means connected to the output of the deserializing means for comparing the recovered test data byte to the test data byte (element 61, and column 8, lines 24-31).

As per claims 2 and 15, Schneider also teaches that the clock and and data recovery [means] comprises a phase lock loop (Fig. 5, elements 48 and 56).

As per claims 3 and 10, Schneider also teaches that a multiplexer is coupled to the clock and data recovery [means] ... (Fig. 5, element 55).

As per claims 4 and 9, Schneider also teaches a first multiplexer that is coupled to the serializing means ... (Fig. 5, element 35).

As per claim 5, Schneider also teaches a second multiplexer that is coupled to the clock and data recovery [means] ... (Fig. 5, element 55).

As per claims 12, and 23, the generating means and the analyzing means of Schneider are inherently controlled by a clock or a state machine

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As per claims 16 and 21, the phase lock loop in Schneider's circuit inherently waits for a predetermined period before being allowed to lock to a predetermined frequency.

As per claims 17 and 22, in Schneider, the steps of serializing, recovering, deserializing, and analyzing are inherently repeated for each generated new test data.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors.

In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 6-8, 11, 13, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (U.S. Patent No. 6,201,829 B1).

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As per claims 6 and 11, it is noted that Schneider does not explicitly disclose whether the test data is in the form of a SONET frame and that the start of the SONET frame is detected by the analyzing means. However, it is known in the art to use SONET frames when the network in question is a synchronous optical network. It is also known in the art to determine the start and the end of a frame before using it for further processing. Therefore, it would have been obvious to a person of ordinary skill in the art to implement the claimed invention based on the aforementioned common knowledge. The motivation would have been to provide a transceiver circuit of the type adapted to interface between high speed serial data and parallel-type encoded transmission character bytes in accordance with the Fibre Channel interface specification.

As per claims 7 and 19, the generating means and the analyzing means of Schneider are inherently controlled by a clock or a state machine.

As per claims 8 and 13, Schneider does not explicitly disclose that the data generating means is a programmable data generator. However, it would have been obvious to a person of ordinary skill in the art to implement the claimed invention because doing so would have provided a more versatile generator.

As per claims 18 and 20, Schneider does not explicitly disclose the use of a counter included within the state machine to count the number of pulses. One of ordinary skill in the art, however, would have implemented the claimed invention because the use of counter/s in state machines is well known in the art.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,295,079 (Wong et al.); 5,381,085 (Fischer); 5,729,151 (Zoerner et al.); 5,787,114 (Ramamurthy et al.); 5,835,501 (Dalmia et al.); 5,956,370 (Ducaroir et al.); and 6,215,835 (Kyles).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel L. Moise whose telephone number is (703)305-9763. The examiner can normally be reached on Monday - Friday from 08:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady, can be reached on (703)305-9595. Any response to this action should be mailed to: Commissioner of Patents and Trademarks Washington, D.C. 20231, or faxed to: (703) 746-7239, (for formal communications intended for entry), Or: (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

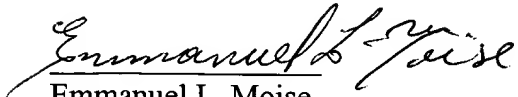
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

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A handwritten signature in cursive script, reading "Emmanuel L. Moise". The signature is written in dark ink and is positioned above the printed name.

Emmanuel L. Moise
Primary Patent Examiner
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April 19, 2003